

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 93-053
NPDES NO. CA0027952

WASTE DISCHARGE REQUIREMENTS FOR:

AMERICAN BRASS AND IRON FOUNDRY
7825 SAN LEANDRO STREET
OAKLAND, ALAMEDA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter called the Board) finds that:

1. American Brass & Iron Foundry, hereinafter called the discharger, has submitted an application dated February 10, 1993 for the reissuance of waste discharge requirements and a permit to discharge waste under the National Pollutant Discharge Elimination System (NPDES).
2. The Discharger operates a cast iron foundry for the manufacture of cast iron fittings and pipes. Metals used are obtained from recycling automobile engine blocks and other available scrap metals. These materials are stored on the site in a scrap storage yard.
3. The foundry operates 10.5 hours per day, four days per week. It produces about 250 tons of castings per day. This facility is in the Metal Molding and Casting Category operation as classified by the United States Environmental Protection Agency and it is defined in 40 CFR 464 as a grey iron foundry.
4. On June 15, 1988, the Board adopted Order No. 88-090, which allows discharge through a storm culvert to Elmhurst Creek, a tributary of San Francisco Bay.
5. The U.S. Environmental Protection Agency (EPA) and the Board have classified this discharge as a minor discharge
6. Waste 001 non-contact cooling water from the operation of the furnaces. Average dry weather flow is 327,000 gallons per day. The wastewater is discharged at the southwest corner of the plant into an adjacent ditch that flows through a storm culvert to Elmhurst Creek. Stormwater joins Waste 001 before entering Elmhurst Creek.

7. The State Water Resource Control Board adopted statewide Water Quality Objectives on April 13, 1991. In compliance to the objectives, the Regional Board revised the December 1986 Water Quality Control Plan for the San Francisco Bay Region (Basin Plan).
8. The Regional Board adopted a revised Basin Plan on September 16, 1992 and the State Water Resources Control Board (State Board) approved it on April 27, 1993. The Basin Plan contains water quality objectives for Elmhurst Creek, San Francisco Bay and contiguous waters.
9. On April 11, 1991, the State Board adopted the Water Quality Control Plan for Enclosed Bays and Estuaries of California (Enclosed Bays and Estuaries Plan). This plan establishes water quality objectives for a number of chemical specific parameters and for whole effluent acute and chronic toxicity. The Enclosed Bays and Estuaries Plan was amended by the State Board on November 19, 1992.
10. The beneficial uses of these water bodies are:
 - a. Water contact recreation
 - b. Non-contact water recreation
 - c. Navigation
 - d. Commercial and sport fishing
 - e. Wildlife habitat
 - f. Fish spawning and migration
 - g. Industrial service and process supply
 - h. Shellfish harvesting
 - i. Estuarine habitat
 - j. Preservation of rare and endangered species
11. The Basin Plan prohibits (a) discharge of any wastewater which has particular characteristics of concern to beneficial uses at any point at which wastewater does not receive a minimum initial dilution of 10:1 and (b) discharge into any non-tidal water, dead-end slough, or similar confined waters, or into its immediate tributaries. The Board finds that the proposed discharge does not have particular characteristics of concern, provided that the discharge limitations contained in this Order are met.
12. The Discharger has provided a Best Management Practice Plan which prevents the potential for the release of pollutants to State waters from ancillary activities. These activities include material storage areas, plant site runoff, in-plant transfer, process and material handling areas, loading and unloading operations, and waste treatment and containment areas.

13. Effluent limitation, toxic effluent standards, established pursuant to Section 301, 304, and 307 of the Clean Water Act and amendments thereto are applicable to the discharge.
14. Effluent limitation guidelines requiring the application of best available technology economically achievable (BAT) for this point source category have not been promulgated by the United States Environmental Protection Agency. Effluent limitations of this Order are based on the Basin Plan, State Plans and policies, current discharge practice, and best professional judgment. The limitations are considered to be those attainable by BAT, in the judgment of the Board.
15. The issuance of waste discharge requirements of this discharge is exempt from the provisions of Chapter 3 (commencing with Section 21000 of Division 13) of the Public Resources Code (CEQA) pursuant to Section 13389 of the California Water Code.
16. The Discharger and interested parties have been notified of the Board's intent to reissue waste discharge requirements and have been provided with the opportunity for a public hearing and to submit their comments.
17. The Board, at a public meeting, heard and considered all comments pertaining to this discharge.

IT IS HEREBY ORDERED that American Brass and Iron; in order to meet the provision contained in Division 7 of the California Water Code and the regulations adopted thereunder, and the provisions of the Clean Water Act and the regulations and guidelines adopted thereunder; shall comply with the following:

A. DISCHARGE PROHIBITIONS

1. The discharge of all process wastes, wastewater, solvents, oils, or other products of petroleum origin to state waters is prohibited.
2. The discharge of stormwater runoff from areas in contact with process wastes, raw materials, solvents, oils, or other products of petroleum origin stored or deposited on plant surfaces is prohibited.
3. The discharge of chemically treated cooling water is prohibited except as authorized by the Executive Officer. The Executive Office may grant approval for non-metallic additives that are demonstrated by the Discharger to be biodegradable prior to discharge and will not cause any violations of permit conditions or the Basin Plan. Demonstration shall be to the satisfaction of the Executive Officer.

B. EFFLUENT LIMITATIONS

1. The discharge of Waste 001 shall be limited to non-contact cooling water and uncontaminated stormwater runoff.
2. The discharge of Waste 001 shall not contain constituents in excess of the following limits:

<u>CONSTITUENTS</u>	<u>UNITS</u>	<u>MONTHLY AVERAGE</u>	<u>MAXIMUM DAILY</u>
Arsenic	µg/l	--	20
Cadmium	µg/l	--	9.3
Chromium	µg/l	--	11
Copper	µg/l	--	4.9
Lead	µg/l	--	5.6
Mercury	µg/l	--	1
Nickel	µg/l	--	7.1
Silver	µg/l	--	2.3
Zinc	µg/l	--	58
Oil and Grease	mg/l	20	10
Settleable Solids	mg/l-hr	0.1	0.2
Total Suspended Solids	mg/l	30	45

3. The maximum temperature of the effluent shall not exceed 86 °F.
4. The effluent shall not have a pH of less than 6.5 nor greater than 8.5.

5. In any representative set of samples, the waste as discharged shall meet the following limit of quality:

TOXICITY: The survival of organisms in undiluted effluent shall be a 3-sample median value of not less than 90 percent survival and a 90 percentile value of not less than 70 percent survival. The 3-sample median and 90th percentile effluent limitations are defined as follows:

3 sample median: If one of the past two or fewer samples shows less than 90 percent survival, then survival of less than 90 percent on the next sample represents a violation of the effluent limitation.

90th percentile: If one or more of the past ten or fewer samples is shown to be less than 70 percent survival, then survival of less than 70 percent on the next sample represents a violation of the effluent limitations.

C. RECEIVING WATER LIMITATIONS

1. The discharge of waste shall not cause the following conditions to exist in waters of the State:
 - a. Floating, suspended, or deposited macroscopic particulate matter or foam;
 - b. Bottom deposits or aquatic growths;
 - c. Alteration of temperature, turbidity, or apparent color beyond present background levels;
 - d. Visible, floating, suspended, or deposited oil or other products of petroleum origin;
 - e. Toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on aquatic biota, wildlife, or waterfowl; or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.

2. The discharge of waste shall not cause the following limits to be exceeded in waters of the State within one foot of the water surface:
 - a. Dissolved Oxygen 5.0 mg/l minimum. Median of any three consecutive months shall not be less than 80% saturation. When natural factors cause lesser concentrations than those specified above, then this discharge shall not cause further reduction in the concentration of dissolved oxygen.
 - b. pH Variation from natural ambient pH by more than 0.5 pH units.
3. The discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Board or the State Water Resources Control Board as required by the Clean Water Act and regulations adopted. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Clean Water Act, or amendments thereto, the Board will revise this Order in accordance with such more stringent standards.

D. PROVISIONS

1. The requirements prescribed by this Order supersede the requirements prescribed by Order 88-090. Order 88-090 is hereby rescinded.
2. The Discharger shall comply with all sections of this Order immediately upon adoption.
3. The Discharger shall review and update annually its contingency plan as required by Board Resolution No. 74-10. The Discharge of pollutants in violation of this Order, where the discharger failed to develop and/or implement a contingency plan, will be a basis for considering the discharge a willful and negligent violation of this Order pursuant to Section 13387 of the California Water Code.
4. The Discharger shall comply with the attached self-monitoring program, which may be revised by the Executive Officer.

5. The Discharger shall comply with all items of the attached "Standard Provisions, Reporting Requirements, and Definitions" dated April 1977, except items A.5, A.12, and B.5.
6. All applications, reports, or information submitted to the Regional Board shall be signed and certified pursuant to Environmental Protection Agency regulations (40 CFR 122.41K).
7. Compliance with the acute toxicity limitation in effluent limitation B.5. of this Order shall be evaluated by measuring survival of test fishes exposed to undiluted effluent of 96 hours. Each fish species represents a single sample. The toxicity tests will be performed according to protocols approved by the U.S. EPA or State Board or published by the American Society for Testing and Materials (ASM) or American Public Association. Two fish species will be tested concurrently. These shall be the two most sensitive species determined from concurrent screening(s) of the following three species: (1) three-spine stickleback, (2) rainbow trout, and (3) fathead minnow. If concurrent screenings have been conducted prior to this permit reissuance, the existing data may be submitted to the Board. If such information is found to meet the requirement of the Basin Plan, further screening would not be required.
8. The Discharger shall permit the Regional Board or its authorized representatives:
 - a. Entry into premises in which effluent source is located or in which required records are kept.
 - b. Access to copy any records required to be kept under terms and conditions of this Order.
 - c. Inspection of any monitoring equipment or method required by this Order.
 - d. Sampling of any discharge.
9. The Discharger shall maintain in good working order and operate, as efficiently as possible, all facilities in order to achieve compliance with the discharge requirements.
10. The Discharger shall maintain a copy of this Order at the site so that it will be available at all times to personnel operating the plant.

11. Pursuant to Environment Protection Agency regulations (40 CFR 122.42[2]) the Discharger must notify the Regional Board as soon as it knows or has reason to believe (1) that they have begun or expect to begin, use of manufacture of a pollutant not reported in the permit application, or (2) a discharge of toxic pollutants not limited by this permit has occurred or will occur in concentrations that exceed the specified limits.

12. This permit shall be modified or alternatively revoked and reissued to comply with any applicable effluent standards or limitations issued or approved under Sections 301(b)(2)(c), 303, 304(b)(2), and 307(a)(2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:

- a. Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
- b. Controls any pollutant not limited in the permit.

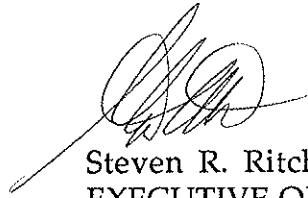
The permit as modified or reissued under this paragraph shall also contain any other requirements of the Act then applicable.

13. This Order expires on June 16, 1998. The Discharger must file a report of waste discharge in accordance with Title 23, Chapter 3, Subchapter 9 of the California Water Code no later than 180 days in advance of the expiration date as an application for issuance of new waste discharge requirements.

14. In the event of any changes in control or ownership of the foundry, the Discharger shall notify the succeeding owner or operator of the existence of this Order by a letter. A copy of the letter shall be forwarded to this Board.

15. This Order shall serve as a National Pollutant Discharge Elimination System Permit pursuant to Section 402 of the Clean Water Act or amendments thereto, and shall become effective 10 days after the date of its adoption provided that the Regional Administrator at the Environmental Protection Agency, has no objection. If the Regional Administer objects to its issuance, the permit shall not become effective until the objection is withdrawn.

I, Steven R. Ritchie, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region on June 16, 1993

A handwritten signature in black ink, appearing to read 'S. Ritchie', is written over a horizontal line.

Steven R. Ritchie
EXECUTIVE OFFICER

Attachments:

- A. Standard Provisions and Reporting Requirements, April 1977
- B. Self-Monitoring Program
- C. Resolution No. 74-10

ATTACHMENT B

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION**

**SELF-MONITORING PROGRAM
FOR**

American Brass and Iron Foundry

NPDES NO. CA0027952

ORDER NO 93-053

**CONSISTS OF
Part A dated January 1978
and
Part B**

Part B

A. General

Reporting responsibilities of waste dischargers are specified in Sections 13255(a), 13267(b), 13268, 13383, and 13387(b) of the California Water code and this Regional Board's Resolution 73-16.

The principal purposes of a monitoring program by a waste discharger, also referred to as self-monitoring program, are:

- (1) to document compliance with the waste discharge requirements and prohibitions established by this Regional Board,
- (2) to facilitate self-policing of the waste discharge,
- (3) to develop or assist in the development of effluent or other limitations, discharge prohibitions, national standards, and
- (4) to prepare water and wastewater quality inventories.

B. MONITORING PROGRAM

1. Sampling, analysis, and observation shall be performed at the below locations:

a. Influent

<u>Station</u>	<u>Description</u>
I	At any point in the water supply intake system prior to any usage.

b. Effluent

<u>Station</u>	<u>Description</u>
E-001	At a point in the 001 outfall for the non-contact cooling water along the southwest corner of the plant, between the point of discharge into the drainage ditch and the point at which all waste tributary to that outfall is present.

c. **Receiving Waters**

<u>Station</u>	<u>Description</u>
Z-1	At a point in Elmhurst Creek, located 5 feet downstream of Outfall 001.
Z-2	At a point in Elmhurst Creek, located 5 feet upstream of Outfall 001.

2. **Schedule of sampling, measurement, and analysis**

- (a) The schedule of sampling, measurements and analysis shall be given in Table 1.
- (b) Sample collection, storage and analysis shall be performed according to the latest 40 CFR Part 136 or other methods approved and specified by the Board.

C. Modification of Part A, dated January 1978

- 1. **Exclusions:**
Sections E.1.a. and E.4.
- 2. **Modifications**
Section G.4. shall be modified as follow: "Written reports shall be prepared quarterly and shall be **received** by the Regional Board **by the fifteenth day of the month** following the quarter (e.g. January-March report is due April 15th)."

D. Reports to be filed with the Regional Board

1. **Violation of Requirements:**

In the event the Discharger is unable to comply with the conditions of the waste discharge requirements and prohibitions due to:

- (a) maintenance work, power failure, or breakdown of waste treatment equipment, or
- (b) accidents caused by human error or negligence, or
- (c) other causes such as acts of nature,

the discharger shall notify the Regional Board by telephone as soon as he or his agents have knowledge of the incident and confirm this notification in writing within two weeks of the telephone notification. The reports shall include pertinent information explaining reason for the noncompliance and shall indicate what steps were taken to prevent the problems from recurring.

2. Self-Monitoring Reports:

- (a) A letter transmitting self-monitoring reports should accompany each report. Such a letter shall include a discussion of the requirement violations found during the past quarter and actions taken or planned for correcting the violations (i.e. operation modifications and/or facilities expansion). If the Discharger has previously submitted a detailed time schedule for correcting requirement violations, a reference to the correspondence transmitting such schedule will be satisfactory. The letter shall contain a statement by the official, under penalty or perjury, that to the best of the signer's knowledge the report is true and correct.
- (b) Tabulations of the results from each required analysis and/or observations specified in Table I by date, time, type of sample, and station.
- (c) Listing of analyses performed for the Discharger by an approved laboratory (and copies of reports signed by the laboratory director of that laboratory shall also be submitted as part of the report).

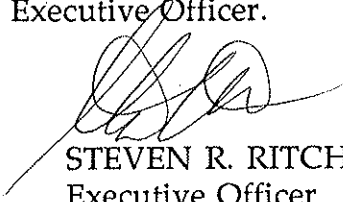
E. Miscellaneous Reporting

- 1. Strip charts of the effluent pH record must be retained with other laboratory records and made available for inspection by Board staff.
- 2. The discharger shall retain and submit, when required, the following information concerning the monitoring program for organic and metallic pollutants.
 - (a) Description of sample stations, times, and procedures.
 - (b) Description of sample containers, storage, and holding time prior to analysis.

- (c) Quality assurance procedures together with any test results for replicate samples, sample blanks, and any quality assurance tests, and the recovery percentages for the internal and surrogate standards.

I, Steven R. Ritchie, Executive Officer, do hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedure set forth in this Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in Regional Board's Order No. 93-053.
2. Is effective on the date shown below.
3. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the Discharger and revisions will be ordered by the Executive Officer.


STEVEN R. RITCHIE
Executive Officer

Effective Date 6/16/93

Attachment: Table 1 - Schedule for sampling, measurements, and analysis.

TABLE 1
SCHEDULE FOR SAMPLING, MEASUREMENT, AND ANALYSIS

Sampling Station	I	E - 001	Z-1 to Z-2				
TYPE OF SAMPLE	C-X	C-X	G	G			
Flow Rate (mg/d)	C	C					
COD (mg/l & kg/day)		Q					
Chloride (mg/l & kg/day)		Q					
Settleable Matter (ml/1-hr. & ft ³ /day)			M				
Total Suspended Matter (mg/l & kg/day)		M					
Oil and Grease ⁽¹⁾ (mg/l & kg/day)			M				
Total Dissolved Solids (mg/l & kg/day)			Q				
Fish Toxicity 96 hr TL % ⁽²⁾ Survival in undiluted waste		2/Y					
Total Phosphate ⁽³⁾ (mg/l & kg/day)			Q				
Turbidity (Jackson Turbidity Units)			Q	Q			
pH (units)		C		Q			
Dissolved Oxygen (mg/l and % Saturation)			Q	Q			
Temperature (°C)			C	C			
Iron (mg/l & kg/day)		Q					
Arsenic (mg/l & kg/day)		Q					
Cadmium (mg/l & kg/day)		Q					
Chromium, Total (mg/l & kg/day)		M					
Copper (mg/l & kg/day)		M					
Cyanide (mg/l & kg/day)		Q					
Silver (mg/l & kg/day)		Q					
Lead (mg/l & kg/day)		M					
Mercury (mg/l & kg/day)		Q					

Sampling Station	I	E - 001	Z-1 to Z-2				
TYPE OF SAMPLE	C-X	C-X	G	G			
Nickel (mg/l & kg/day)		Q					
Zinc (mg/l & kg/day)		M					
All Applicable Standard ⁽⁴⁾			D	D			
Observations							

LEGEND FOR TABLE

TYPES OF SAMPLES

G = grab sample
 C-24 = composite sample - 24-hour
 C-X = composite sample - X hours
 (used when discharge does not
 continue for 24-hour period)
 Con = continuous sampling

TYPES OF STATIONS

I = intake and/or water supply stations
 A = treatment facility influent stations
 E = waste effluent stations
 Z = receiving water stations
 P = treatment facilities perimeter stations

FREQUENCY OF SAMPLING

D = once each day
 2/Y = once in March and
 once in September

C = continuous
 Q = quarterly, once in
 March, June,
 September, and
 December

Footnotes

- (1) Oil and Grease sampling shall consist of 3 grab samples taken at 2-hour intervals during the sampling day, with each grab sample being collected in a glass container. The entire volume of each sample shall be composited prior to analysis. Each glass container used for sample collection or mixing shall be thoroughly rinsed with solvent rinsings as soon as possible after use, and the solvent rinsings shall be added to the composite wastewater sample for extraction and analysis.
- (2) The bioassay test shall be static.
- (3) Grab sample when cooling tower blowdown is being discharged to outfall.
- (4) Observations